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## Improving self-management of health through an eHealth application

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## CONFERENCE ABSTRACT

### Improving self-management of health through an eHealth application: an action-based study among older adults living in the community

18<sup>th</sup> International Conference on Integrated Care, Utrecht, 23-25 May 2018

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**Introduction:** Older adults living at home benefit from self-management support to stay healthy for as long as possible. An eHealth application could be a solution to meet older adults' individual supportive needs. The aim of this study was to identify quality criteria for eHealth applications targeting personalized access to self-management support of health from a community-living older adult's perspective. The study is conducted as part of the EU-supported CONNECARE research and the NFU program eHealth.

**Methods:** We designed an action-based study using focus groups, individual interviews, and questionnaires among robust, community-living older adults participating in Embrace, a person-centred and integrated service in the Netherlands. The study was designed in three phases. The results of each phase led to an improved version of the quality criteria underlying the eHealth application, which was used as input for the next phase of development. In the first phase, twelve older adults participated in two focus groups that gathered twice. The majority was male  $n=8$  and participants were between the age of 76 and 85. Participants were asked about their needs concerning physical activity, nutrition, and social activity in their daily lives, and the support of a potential eHealth application. Based on a first list of quality criteria resulting from these focus groups, a self-management application prototype was developed. In the second phase, seven participants male:  $n=6$  tested the prototype and individual interviews were conducted, resulting in a second version of the quality criteria. Focus group discussions were audio-recorded and interviews were video-recorded. All data were transcribed verbatim and then analyzed and coded into key issues and themes. Results of the first two phases are now used to further develop and improve the self-management application. The third phase concerns evaluation research in which robust older adults living at home  $n=40$ , 75 years and older will use the application in their daily lives. Evaluation will involve quantitative and qualitative measures, resulting in a final list of quality criteria.

**Results:** A list of quality criteria for eHealth applications has been established based on the first two phases of the study. Quality criteria concern accessibility, functionalities, navigation, readability, trust and privacy.

**Discussions:** Study results provide insight into quality criteria needed to design, build and implement an eHealth application targeting personalized access to self-management support of health from the older adults' perspective.

**Conclusions:** An eHealth application targeting older adults' self-management should be easy to use, personalized, and beneficial for the person using it.

**Lessons learned:** For a successful eHealth application it is essential to actively involve potential end users at all stages of the developmental process. Traditional research methods have to be adapted to successfully study the quality of an eHealth application.

**Limitations:** Participants were all relatively healthy older adults with at least an interest in ICT early adopters, frail older adults were excluded.

**Suggestions for future research:** Viewpoints of care providers and more vulnerable older adults, for example people with complex care needs, low health literacy, or different ethnicity should be addressed.

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**Keywords:** self-management; person-centered care; eHealth; older adults; action-based research

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